

# Customer Information Sheet

DRAWING No.: M80-500000M2-XX-XXX-00-000

SHEET 3 OF 4

IF IN DOUBT - ASK

©

NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

## SPECIFICATIONS:

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX & POWER CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = COPPER ALLOY  
 LATCHING COLLAR = BERYLLIUM COPPER  
 INSULATOR = PTFE

JACKSCREWS, NUTS: STAINLESS STEEL

### FINISH:

**COAX & POWER CONTACT:**  
 BODY, SLEEVE, INNER CONTACT, END PLUG = GOLD  
 LATCHING COLLAR = NICKEL

### ELECTRICAL:

WORKING VOLTAGE = 120V AC/DC  
 VOLTAGE PROOF = 360V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN

### POWER CONTACT:

CONTACT RESISTANCE 6mΩ MAX  
 CURRENT RATING = M80-335 = 20A MAX WITH 12AWG  
 M80-336 = 15A MAX WITH 14AWG  
 M80-337 = 10A MAX WITH 16AWG  
 M80-338 = 8A MAX WITH 18AWG  
 M80-339 = 5A MAX WITH 20AWG  
 CONTACT AS SPECIFIED

### COAX CONTACT:

FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50 Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE 6 mΩ MAX

INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC

### MECHANICAL:

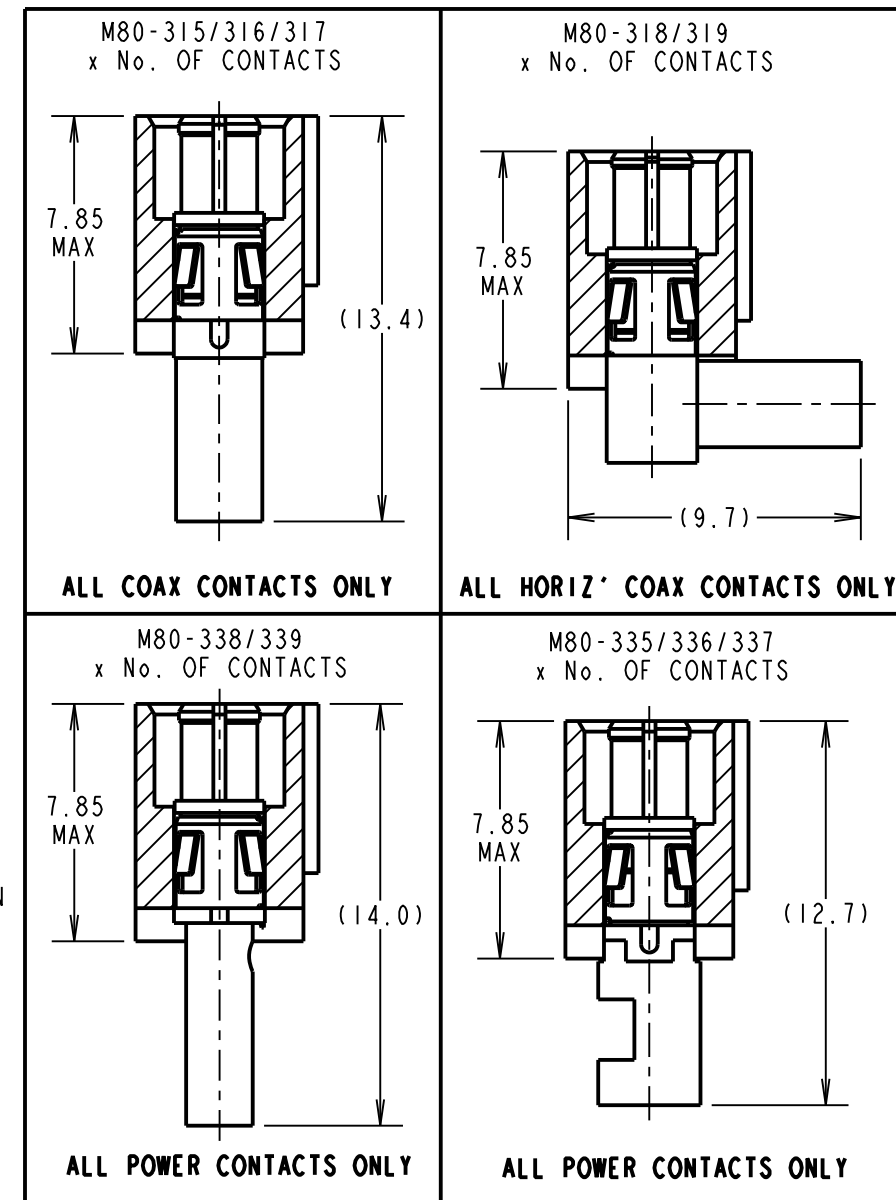
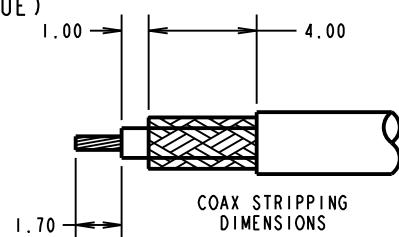
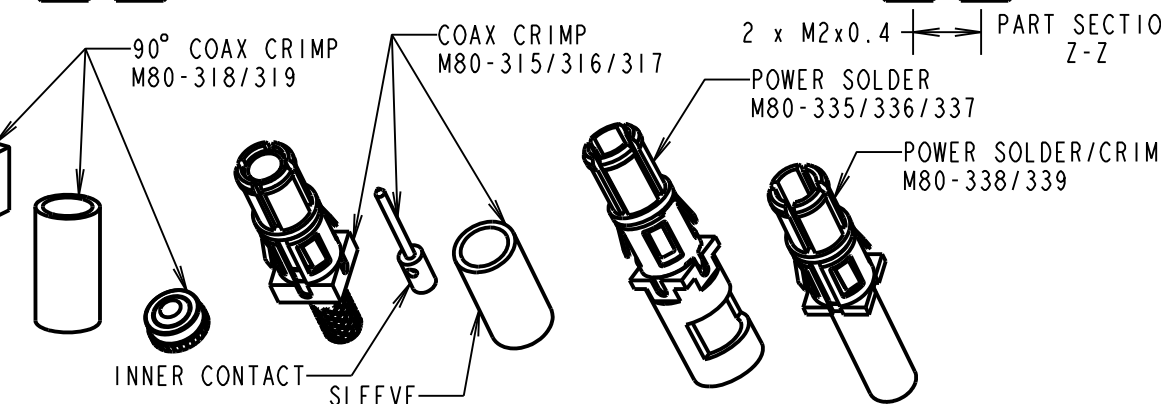
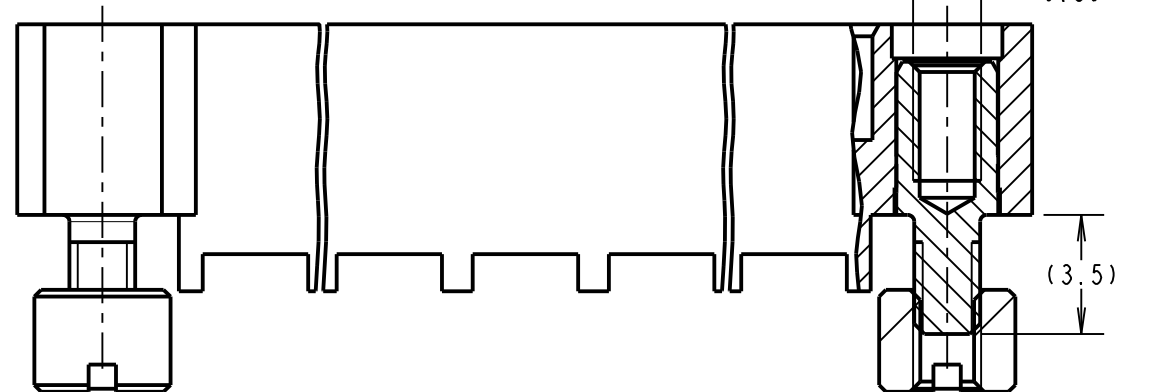
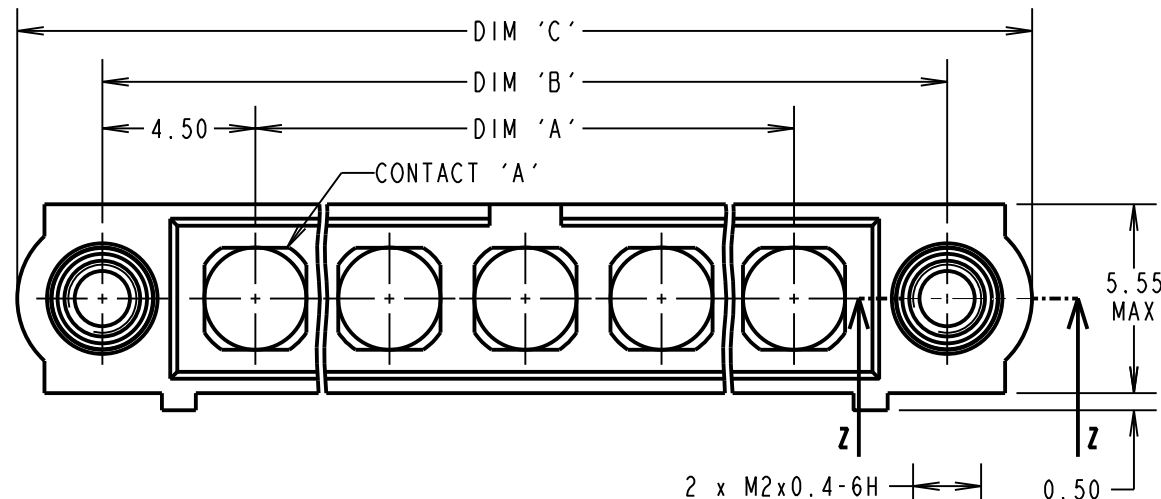
DURABILITY = 500 OPERATIONS  
**COAX & POWER CONTACT:**  
 INSERTION FORCE = 5N MAX  
 WITHDRAWAL FORCE = 0.5N MIN

### ENVIRONMENTAL:

TEMPERATURE RANGE = -55°C TO +125°C

### PACKING:

BAG  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00

EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS,  
 M80-500000M2-08-315-00-000  
 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm  
 DIM 'D' = 3.0mm

EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS,  
 M80-500000M2-10-335-00-000  
 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm  
 DIM 'E' = 3.5mm

ORDER CODE: (CRIMP/SOLDER CONTACTS)  
**M80-500000M2-XX-XXX-00-000**

TOTAL No. OF CONTACTS  
 02 TO 12

SPECIAL CONTACTS (CRIMP)  
 315 = COAX CONTACT 2.0mm CRIMP M80-315  
 316 = COAX CONTACT 2.4mm CRIMP M80-316  
 317 = COAX CONTACT 2.7mm CRIMP M80-317  
 318 = COAX CONTACT 2.0mm HORIZ' CRIMP M80-318  
 319 = COAX CONTACT 2.7mm HORIZ' CRIMP M80-319  
 335 = POWER CONTACT 12AWG SOLDER  
 336 = POWER CONTACT 14AWG SOLDER  
 337 = POWER CONTACT 16AWG SOLDER  
 338 = POWER CONTACT 18AWG SOLDER/CRIMP M80-338  
 339 = POWER CONTACT 20AWG SOLDER/CRIMP M80-339

- NOTES:
- CONNECTORS ARE SUPPLIED WITH CONTACTS LOOSE.
  - COAX CONTACT IS SUPPLIED AS A KIT OF PARTS: BODY, MAIN INSULATOR, INNER CONTACT AND LATCHING COLLAR ARE PRE-ASSEMBLED AND SLEEVE AND INSULATED END PLUG ASSEMBLY ARE SEPARATE.
  - FOR EXTRA COAX CONTACTS, USE PART NUMBERS M80-315/316/317/318/319.
  - FOR EXTRA POWER CONTACTS USE PART NUMBERS M80-335/336/337/338/339
  - COAX & POWER CONTACT EXTRACTION TOOL = Z80-290
  - POWER CONTACT WIRE, STRIP BY 5.00mm MINIMUM.
  - RECOMMENDED HAND CRIMP TOOL FOR CONTACTS 338/339 = Z80-294 AND POSITIONER Z80-295.
  - RECOMMENDED HAND CRIMP TOOL FOR INNER CONTACT = Z80-292 WITH POSITIONER Z80-291. RECOMMENDED HAND CRIMP TOOL AND DIE SET FOR SLEEVE = Z80-293.
  - INSTRUCTION SHEETS ARE AVAILABLE.

SM	2	11.11.10	11006
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: R. ADDE			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

**HARWIN**

HARWIN USA TEL: 603 893 5376 FAX: 603 893 5396 mis@harwin.com	HARWIN Europe (UK) TEL: 023 9231 4545 FAX: 023 9231 4590 mis@harwin.co.uk	HARWIN Asia TEL: +65 6 779 4909 FAX: +65 6 779 3868 mis@harwin.com.sg
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TOLERANCES  
 X. = ±1mm  
 X.X = ±0.25mm  
 X.XX = ±0.10mm  
 X.XXX = ±0.01mm

ANGLES = ±5°  
 UNLESS STATED

MATERIAL: SEE ABOVE

FINISH: SEE ABOVE

S/AREA: mm<sup>2</sup>

TITLE: JACKSCREW DATAMATE MIXED TECHNOLOGY MALE ASSEMBLY

DRAWING NUMBER: **M80-500000M2-XX-XXX-00-000**

SHT 3 OF 4

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SHEET 4 OF 4

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NOT TO SCALE

THIRD ANGLE PROJECTION

ALL DIMENSIONS IN mm

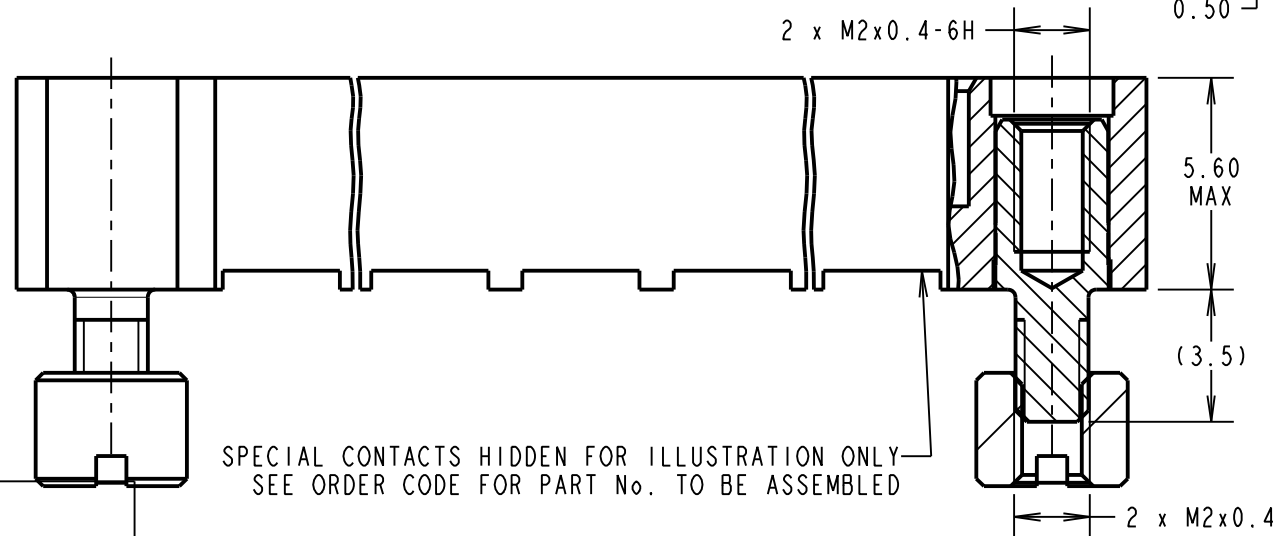
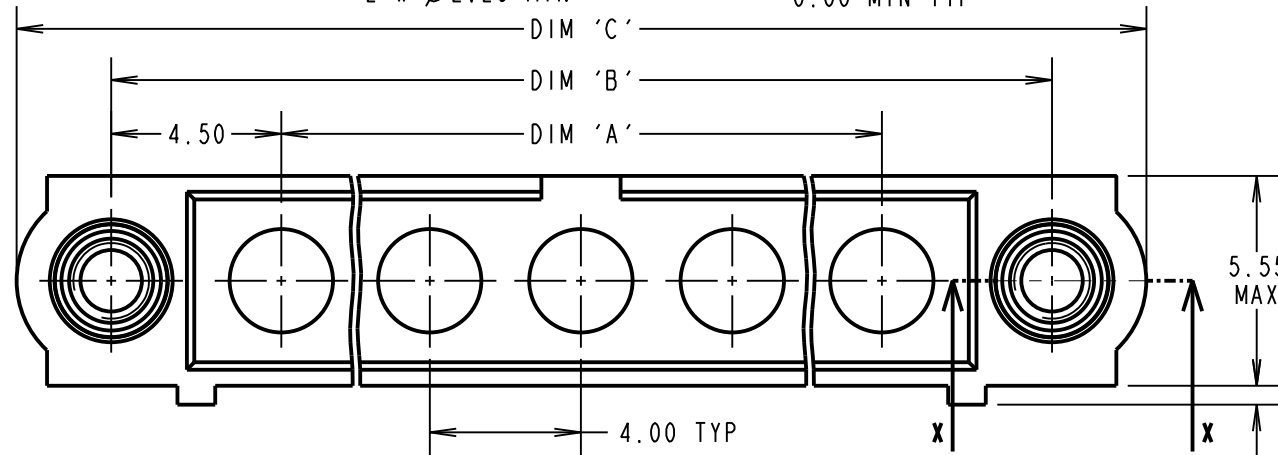
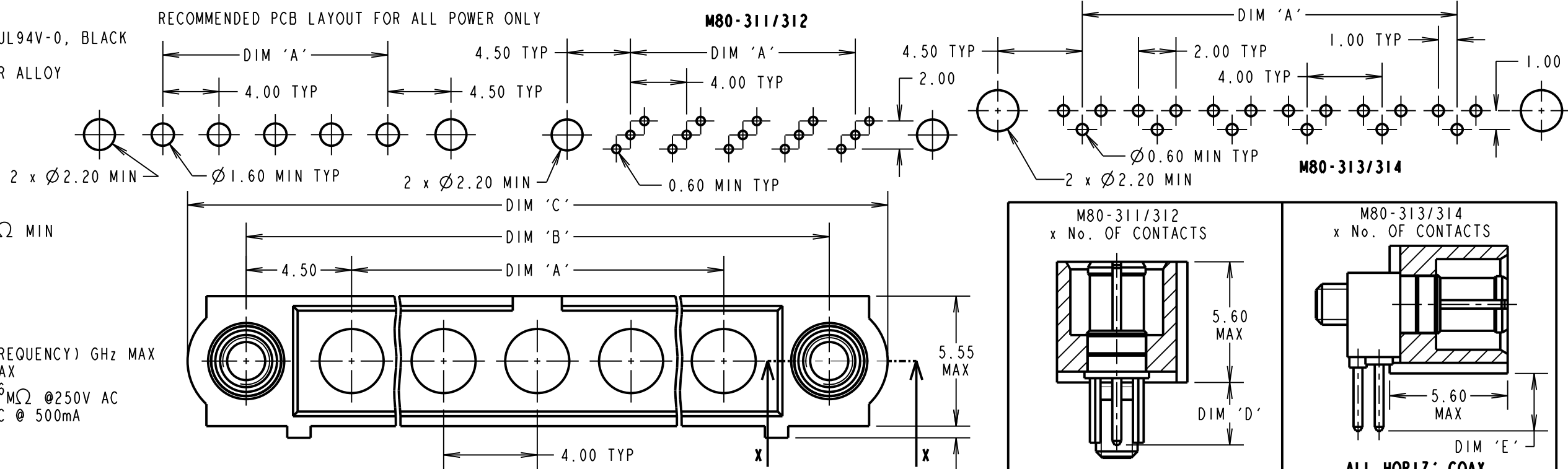
## SPECIFICATIONS:

**MATERIAL:**  
 MOULDING: GLASS FILLED PPS, UL94V-0, BLACK  
**COAX & POWER CONTACT:**  
 BODY, INNER CONTACT, = COPPER ALLOY  
 INSULATOR = PTFE  
**JACKSCREW: STAINLESS STEEL**  
**FINISH:**  
**COAX & POWER CONTACT:**  
 BODY, INNER CONTACT, = GOLD  
**ELECTRICAL:**  
 WORKING VOLTAGE = 120V AC/DC  
 VOLTAGE PROOF = 360V AC/DC  
 INSULATION RESISTANCE = 100MΩ MIN  
**POWER CONTACT:**  
 CONTACT RESISTANCE 6mΩ MAX  
 CURRENT RATING = 20A MAX  
**COAX CONTACT:**  
 FREQUENCY RANGE = 6GHz  
 IMPEDANCE = 50 Ω  
 V.S.W.R = 1.05 + (0.04 x FREQUENCY) GHz MAX  
 CONTACT RESISTANCE 6 mΩ MAX  
 INSULATION RESISTANCE = 10<sup>6</sup>MΩ @250V AC  
 OPERATING VOLTAGE = 180V AC @ 500mA  
 MAXIMUM VOLTAGE = 1000V AC  
**MECHANICAL:**  
 DURABILITY = 500 OPERATIONS  
**COAX & POWER CONTACT:**  
 INSERTION FORCE = 5N MAX  
 WITHDRAWAL FORCE = 0.5N MIN  
**ENVIRONMENTAL:**  
 TEMPERATURE RANGE = -55°C TO +125°C  
**PACKING:**  
 TUBE  
 FOR COMPLETE SPECIFICATION SEE COMPONENT SPECIFICATION C005XX (LATEST ISSUE)

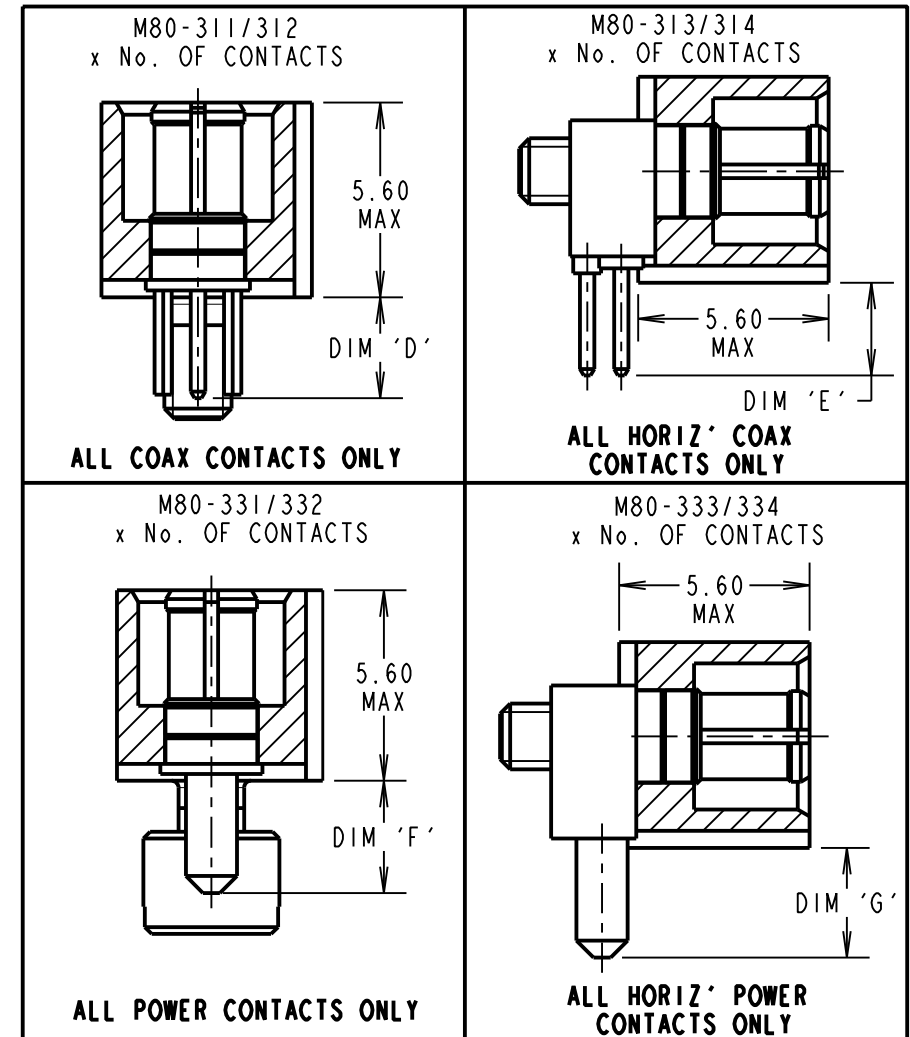
- NOTES:**  
 1. FOR EXAMPLE OF ALL COAX SPECIAL CONTACTS ORDER CODE SEE EXAMPLE 1 IN TABLE.  
 2. FOR EXAMPLE OF ALL POWER SPECIAL CONTACTS ORDER CODE SEE EXAMPLE 2 IN TABLE.

## RECOMMENDED PCB LAYOUTS FOR ALL COAX CONTACTS ONLY

### RECOMMENDED PCB LAYOUT FOR ALL POWER ONLY

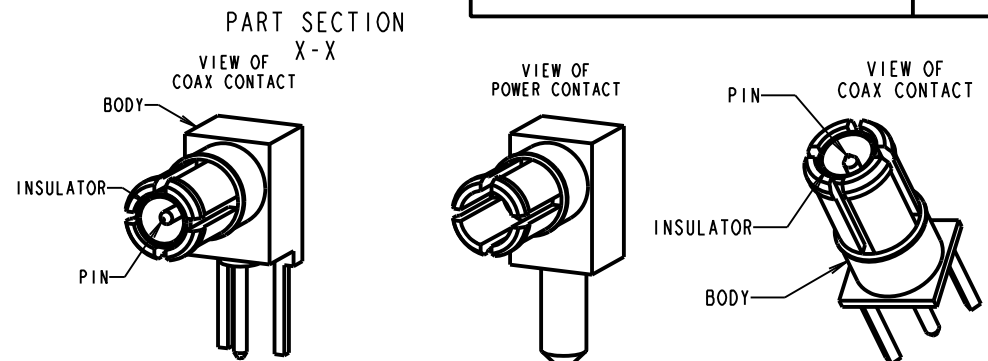


SPECIAL CONTACTS HIDDEN FOR ILLUSTRATION ONLY  
 SEE ORDER CODE FOR PART No. TO BE ASSEMBLED



DIMENSION	CALCULATION
DIM 'A'	4 x No. OF CONTACTS - 4.00
DIM 'B'	4 x No. OF CONTACTS + 5.00
DIM 'C'	4 x No. OF CONTACTS + 10.00
DIM 'D'	M80-311 = 3.0mm, M80-312 = 4.5mm
DIM 'E'	M80-313 = 3.0mm, M80-314 = 4.5mm
DIM 'F'	M80-331 = 3.5mm, M80-332 = 5.0mm
DIM 'G'	M80-333 = 3.0mm, M80-334 = 4.5mm
EXAMPLE 1: CONNECTOR WITH 08 COAX CONTACTS, M80-500000M2-08-313-00-000 DIM 'A' = 28.00mm, DIM 'B' = 37.00mm, DIM 'C' = 42.00mm DIM 'D' = 3.0mm	
EXAMPLE 2: CONNECTOR WITH 10 POWER CONTACTS, M80-500000M2-10-334-00-000 DIM 'A' = 36.00mm, DIM 'B' = 45.00mm, DIM 'C' = 50.00mm DIM 'E' = 3.5mm	

ORDER CODE: (PC TAIL CONTACTS ONLY)  
**M80-500000M2-XX-XXX-00-000**  
 TOTAL No. OF CONTACTS ———  
 02 TO 12  
**SPECIAL CONTACTS (PC TAIL)**  
 311 = COAX CONTACT 3.0mm PC TAIL M80-311  
 312 = COAX CONTACT 4.5mm PC TAIL M80-312  
 313 = COAX CONTACT 3.0mm HORZ' PC TAIL M80-313  
 314 = COAX CONTACT 4.5mm HORZ' PC TAIL M80-314  
 331 = POWER CONTACT 3.5mm VERT' PC TAIL M80-331  
 332 = POWER CONTACT 5.0mm VERT' PC TAIL M80-332  
 333 = POWER CONTACT 3.0mm HORZ' PC TAIL M80-333  
 334 = POWER CONTACT 4.5mm HORZ' PC TAIL M80-334



SM	2	11.11.10	11006
NAME	ISS.	DATE	C/NOTE
APPROVED: S. MCCULLAGH			
CHECKED: R. ADDE			
DRAWN: C. PENROSE			
CUSTOMER REF.:			
ASSEMBLY DRG:			

<b>HARWIN</b>			TOLERANCES X. = ±1mm X.X = ±0.25mm X.XX = ±0.10mm X.XXX = ±0.01mm ANGLES = ±5° UNLESS STATED	MATERIAL: SEE ABOVE FINISH: SEE ABOVE S/AREA: mm <sup>2</sup>	TITLE: JACKSCREW DATAMATE MIXED TECHNOLOGY MALE ASSEMBLY DRAWING NUMBER: <b>M80-500000M2-XX-XXX-00-000</b>	SHT 4 OF 4
HARWIN USA TEL: 603 893 5376 FAX: 603 893 5396 mis@harwin.com	HARWIN Europe (UK) TEL: 023 9231 4545 FAX: 023 9231 4590 mis@harwin.co.uk	HARWIN Asia TEL: +65 6 779 4909 FAX: +65 6 779 3868 mis@harwin.com.sg				